Summary of the Testimony of Mark R. Huson[†]
April 16.1997
Before the House Committee on Commerce, Sub-Committee on Finance and Hazardous Materials in re H.R. 1053: "The Common Cents Stock Pricing Act of 1997"

The move to decimal quotes in U.S. equity markets is a good idea I support the bill as currently written.

I caution against extending this legislation or any legislation to the area of mandating minimum tick sizes in U.S. equity markets. Lowering tick sizes does not unambiguously improve market quality for all stocks. Tick size is a part of the mix that determines a market's quality. As such it is a dimension along which exchanges can compete for listings and order flow. Congress should not legislate pricing policies in a competitive industry.

[†] I have received no federal grants or contracts during the current fiscal year or either of the two preceding fiscal years. This statement is made to comply with Rule X1, clause 2(g)(4) of the Rules of the House and Rule 4(b)(2) of the Committee rules.

I am Professor Mark R Huson. My current affiliations are with the University of Alberta and the University of Texas at Austin. I would like to take this opportunity to thank the committee for the opportunity to discuss H.R. 1053 "The Common Cents Stock Pricing Act of 1997".

The current form of H.R. 1053 requires the introduction of decimal pricing in U.S. equity markets. Currently U.S. equity exchanges are the alone in their use of fractional ticks. I can see no harm in changing the method of quoting prices. In fact, decimal pricing seems a more natural way to think about prices. I support the bill as it is currently written.

I am opposed, however, to any attempt to **extend this or any** legislation to mandate minimum tick sizes in U.S. equity markets. I make this comment because some of the testimony presented before this committee on April 10, 1997 seemed to confuse quoting prices in decimals and reducing the minimum tick size. It should be noted that while other countries use decimal prices, the minimum tick sizes in those markets is not the smallest denomination of the local currency

The effect of decimal pricing on market quality does not come from decimalization per se. Rather it comes from the reduction in the minimum tick size that decimalization could cause. Some claim that a reduction in minimum tick size will enhance market quality. If reducing tick size enhances market quality, the market that reduces tick size will generate more trade and enhance profitability. In fact, the American Stock Exchange has recently reduced its minimum tick to 1/16. NASDAQ is in the midst of a similar reduction. Equity markets compete for listings and order flow. Tick size should remain a dimension of competition.

The Toronto Stock Exchange (henceforth, the TSE) was **kind** enough to provide a laboratory to assess the effect of tick size reduction on market quality. On April 15, 1997 the TSE abandoned fractional prices for all stocks priced above $3.00 (Canadian). Bather than trading in eighths, these stocks would trade with minimum ticks of **5¢**. Stocks priced below $3.00 would trade with minimum ticks of **1¢**.

In a study of the effects of the reduction in tick size on market quality *(Decimal quotes, market quality, and competition for order flow: Evidence from the Toronto Stock Exchange, University of Alberta working paper), my co-authors* (Professors Viis Mehrotra and Young Soo Kim, from the University of Alberta) and I find that the reduction in tick size did not unambiguously improve the market quality of the TSE. In our study we find that the reduction in tick size did lead to a reduction in the quoted bid-ask spread. This appears to be a benefit to traders. However, the reduction in spreads did not come without cost. We also find that the quantity of shares that TSE market makers are willing to trade (the quoted depth) at these lower spreads is also lower. It is not clear that the reduction in quoted depth means that actual depth is lower since the depth in the book may not change even though the market maker is not willing to absorb as much order flow. However, it is not possible to conclude from the evidence on the spread reduction and the concomitant reduction in quoted depth that TSE market quality improved as a result of the reduction in tick size.

With this in mind we examined three market based measures of TSE market quality: TSE trading volume, the share of inter-listed order flow garnered by the TSE and the price of TSE membership. The results are summarized below. The complete paper is available upon request.

If trading costs had indeed been reduced, then we would expect an increase in trading volume. However an examination of TSE trading volume following the reduction in tick size shows no increase in trading activity. A possible explanation for this is that large trades became less appealing because of the reduction in depth, but that small trades that would not exceed the new quoted depths became more appealing. The result would be a change in the composition of orders, with no change in the total quantity of shares traded. We look for differences in the composition of orders after April 15, 1997 and find no increase in the quantity of small (less than 500shares) orders. We interpret this as indicating that the reduction in spreads did not benefit small traders in a material way since it did not increase their demand for trading services. However, it would appear that traders did save approximately $4.00 (Canadian) per round lot traded.

We examine stocks that are inter-listed on the TSE and in a major U.S. equity market (NYSE, AMEX and NASDAQ). If the reduction in tick size on the TSE improved the market quality of the TSE in a material way, we would expect the TSE to be able to draw order flow away from the U.S. trading venues. We examined the TSE’s share of inter-listed order flow before and after April 15, 1997. We do not find any evidence to support the hypothesis that the reduction in tick size increased the TSE’s competitiveness. Specifically, there was no increase in the TSE’s share of inter-listed order flow.

The last market-based measure of the effect of tick size reduction we look at is the value of TSE membership. Stock exchange seats provide access to both trading and market making revenues. TSE members facilitate trades for non-seat holders and are compensated for this activity. Schwert (1977)’ documents that NYSE seat prices over the period from 1926-72 are positively related to unexpected changes in the volume of shares traded on the exchange. Seat prices measure the impact of the reduction in tick size on the exchange community.

The reduction in spreads will reduce the value of TSE membership if it is not offset by an increase in trading volume since it will result in lower revenues for liquidity providers. If the move to decimalization was expected to increase TSE order flow by an amount sufficient to offset the reduction in spreads, seat prices should increase. Seat prices could remain unchanged if either the lost revenue from the reduction in spreads was exactly offset by increased volume, or if market makers compensate for lost revenues from lower spreads by shifting the location of the spread. The TSE announced its intention to reduce the minimum tick size in July of 1995. We examine seat prices before and after this announcement. We find that seat prices are unaffected by the reduction in the minimum tick size. Since there is no discernible increase in volume following decimalization, it is likely that market makers are using their discretion over the location of the quote to offset losses from reduced spreads.

In summary, traders who trade quantities below the new levels of quoted depth probably benefited from the TSE’s change in minimum tick size. Also, it does not appear as if the liquidity providers on the TSE were adversely affected.

At this point it might be tempting to conclude that reducing the minimum tick is a good idea since evidence above indicates that the exchange community does not lose and some traders may be made better off. However, the impact of the tick size reduction on all traders can not be easily measured. So it is not clear whether it was Pareto improving or simply a wealth transfer between traders. Additionally, it most be kept in mind that the TSE's experience are those of an exchange that voluntarily reduced its minimum tick size. It is not clear that the same outcome would result from a legislated reduction in tick size.

Smaller minimum ticks make it easier for traders to match the market maker's quotes. This exposes the market to more risk. To the extent that there is something special about the specialist, (i.e. as the liquidity provider of last resort) care should be taken not to legislate her out of existence.

Large trading costs on some stocks may be used to subsidize the costs of trading in less frequently traded stocks. A recent study by Professors Charles Cao, Hyuk Choe and Frank Hatheway (all are affiliated with the Pennsylvania State University) finds evidence that suggests liquidity providers use the "excess" profits they make on actively traded stocks to improve the market quality of less actively traded stocks. It is not clear that a reduction in tick size will improve the market quality for all stocks. As an example of this sort of behavior in other dimensions of society consider the fact that the Post Office charges you 32¢ to mail a letter across town or across the country. Allowing differential rates would make all cross town mailers better off, but increase costs to cross country mailers.

I see no harm in legislating that prices be quoted in dollars and cents. However, determination of the minimum tick size should remain a matter for the various equity markets to decide. Tick size is a determinant of market quality. It is a dimension on which exchanges can compote for listings and order flow. To the extent that reductions in tick size enhance market quality, these markets will draw listings and order flow.

I support the passage of H.R. 1053 as it is currently written. I oppose any attempt to mandate minimum tick size in U.S. equity markets. I do not think it is necessary for the government to establish pricing policies for firms in competitive markets.

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[1] Schwert, G. William, 1977, Stock exchange seats as capital assets, Journal of Financial Economics, 4, 51-78.

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Curriculum Vitae
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Publications

Institutional activism in Canada: does it work, can it be improved?, in Ronald J. Daniels and Randall Morck eds., Corporate Decision-Making in Canada, Industry Canada Research Series, 1995, University of Calgary Press.

"The impact of-just in-time manufacturing on firm performance in the US," (With Dhananjay Nanda). *Journal of Operations Management 12, 1995.*

"The Effect of Restructuring Charges on Executive Compensation," (with Patricia Dechow and Richard Sloan). *The Accounting Review,* January 1994.

Working Papers

"Another look at the cross section of returns: the role of transaction costs, size and book-to-market." November 1995.

"The effects of microstructure on the estimated relation between spreads and returns," November 1995.

"Earnings, returns and CEO cash compensation: a longer term perspective," (with Gregg A Jarrell) March 1995.

"Internal monitoring of CEO's: 1971-1995," (With Robert Parrino and Laura Starks), March, 1997.

"Does governance matter: evidence from CalPERS interventions", April, 1997

"Decimal quotes, market quality, and competition for order flow: Evidence from the Toronto Stock Exchange," (With Vikas Mehrotra and Young Soo Rim) April 1997.

Work in Progress

"Cross sectional and time series variation in firm performance following CEO departure," (With Paul Malatesta and Robert Parrino)

"Stock splits and liquidity: the case of Berkshire Hathaway," (With Barry Scholnick)

Academic Positions

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- Occasional referee: Journal of Financial Economics, Quarterly Review of Economics and Finance, Information Systems Research, Journal of Operations Management.

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